Final Revision

EL-MOASSER
Guide

COMPUTER & INFORMATION AND COMMUNICATION TECHNOLOGY

الكمبيوتر و تكنولوجيا المعلومات والاتصالات

GPS

1ST Prep.
2025
FIRST TERM

الصـف الأول الإعـدادى
الفصـل الـدراسـى الأول
طبقًا لأحـدث مـواصفات
الورقـة الامتحانية ٢٠٢٤ – ٢٠٢٥
للمدارس الرسمية والخاصة واللغات

Contents

A day is enough

Lesson 1 — Green Technology

1 **Choose the correct answer from a, b, c or d.**

1. Egypt has recently used electric vehicles powered by ....
   a. gas   b. fuel   c. wind-power   **d. batteries**

2. Green technology is sometimes referred to as .... technology.
   a. sustainable   b. clean   **c. both a&b**   d. digital

3. .... are used to convert sunlight into electricity.
   a. Solar panels   b. Smart transportation
   c. Hydropower   d. Wind

4. We use .... to enhance energy efficiency within the transportation sector.
   a. smart transportation   b. turbines
   c. solar panels   d. organic materials

5. .... are used to regulate temperatures and operate lights in different ways.
   a. Sensors   b. Solar energy   c. Recycling   d. Water treatment

	Answer	Explanation
(1)	batteries	Egypt has used electric vehicles powered by batteries as an alternative to fuel powered cars to protect the environment and rationalize the use of its resources.
(2)	both a&b	Green technology is referred to as sustainable technology or clean technology, as green technology is based on technological tools that help protect the environment.
(3)	Solar panels	Green technology has used solar energy to generate electricity from sunlight through solar panels.
(4)	Smart transportation	Smart transportation is using electric vehicles to improve energy efficiency in the transportation sector.
(5)	Sensors	Sensors are used in numerous tasks, including regulating temperatures, operating the lights various methods and detecting smoke from fires.

2 Put (✓) or (✗) for the following sentences.

1. Wind turbines are used to generate electricity from air movement. (✓)

2. Bioenergy involves using organic materials like soybeans and corn to produce energy. (✓)

3. Industrial buildings are designed and constructed using environmentally friendly materials. (✗)

4. 📖 The idea of sensors in water taps depends only on stopping water automatically. (✗)

5. Organic waste is transformed into nutrient-rich compost to improve soil fertility. (✓)

Answer		Explanation
(1)	✓	Green technology uses wind energy to generate electricity from air movement through wind turbines.
(2)	✓	Green technology uses bioenergy through the use of organic materials like soybeans and corn to generate electricity.
(3)	✗	Green technology is used for the rationalization of energy consumption through using green buildings because they are designed using environmentally friendly materials that save energy, improve ventilation and enhance insulation.
(4)	✗	The concept of body sensors on turning water or electricity turn on/off automatically due to the presence of an object under a tap or lamp.
(5)	✓	Green technology uses waste recycling, such as transforming organic waste into nutrient-rich compost to improve soil fertility.

3 Complete the following sentences.

1. Vehicle emissions has raised carbon dioxide percentage in the atmosphere and intensifying global warming and resulting in ....

2. The idea of green technology is based on .... that help protect the environment.

3. .... are used to generate electricity from the movement of water.

4. Green technology is used for rationalization of energy consumption by using energy ....

5. Smart efficient irrigation systems like .... are used for water treatment.

	Answer	Explanation
(1)	environmental pollution	The impact of vehicle emissions has raised the percentage of carbon dioxide in the atmosphere. Global warming and resulting in environmental pollution.
(2)	technological tools	Green technology is based on technological tools that help protect the environment and rationalize the use of its resources.
(3)	Dams	Green technology uses hydropower from dams to generate electricity from water movement.
(4)	electrical appliances	Green technology is used in rationalizing energy consumption by using energy - saving electrical appliances and high-efficiency computers.
(5)	drip irrigation	Green technology is used for water treatment through using smart efficient irrigation systems like drip irrigation.

Lesson 2 Digital transformation and its importance in our daily lives

1 Choose the correct answer from a, b, c or d.

1. .... is the combination of digital technology into all aspects of business to enhance workflow efficiency.
   a. Green technology
   b. Performance tasks
   c. Digital transformation
   d. Industrial

2. Digital transformation is essential for institutions and companies following except ....
   a. enhance efficiency and productivity
   b. creating new employment opportunities
   c. wasting energy
   d. enhance the quality of services

3. Digital transformation is a national project that moves Egypt to deal through a/an .... environment that links all government agencies to each other.
   a. information
   b. technical
   c. industrial
   d. vegetative

4. 📖 You can use electronic payment applications through the .... application.
   a. INSTAPAY
   b. Google Meet
   c. WhatsApp
   d. Email

5. .... are video calls and online conferencing applications.

  a. Google Meet   b. Word   c. Zoom   d. Both a & c

	Answer	Explanation
(1)	Digital transformation	The combination of digital technology into all aspects of businesses to enhance workflow efficiency and innovate products and services.
(2)	wasting energy of	Digital transformation is crucial for institutions and companies for various reasons including increasing efficiency and production, raising the level of services and products provided to customers, increasing sales and revenues , innovation and creativity, maintaining competitiveness , improving decision - making , reducing the use of energy and resources and creating new job opportunities.
(3)	information	Digital transformation is a national project that moves Egypt to deal through an information environment that links all government agencies to each other .
(4)	INSTAPAY	INSTAPAY is an electronic payment application . It enables the sending and receiving and money through a bank account or electronic wallet and provides many services such as paying bills.
(5)	Both a & c	Zoom and Google Meet are collaboration and communication tools. They are video conferencing applications that enables face-to-face communication with others.

2 Put (✓) or (✗) for the following sentences.

1. Digital transformation provides various services and products to citizens in an easier and faster way. (✓)

2. Digital Egypt Platform is a type of electronic payment method that is licensed and approved by the Central Bank of Egypt. (✗)

3. Enhancing the efficiency of resource use is a common axe between green technology and digital transformation. (✓)

4. In order to access any digital services or products , an email address is required. (✓)

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5. INSTAPAY electronic payment system serves as a government electronic gateway offering a variety of online services. (✖)

Answer		Explanation
(1)	✓	Digital transformation enables citizens to access all their services thought the internet and mobile applications, so that various services and products are provided to citizens in an easier and faster way.
(2)	✖	INSTAPAY is an electronic payment method which licensed and approved by Central Bank of Egypt.
(3)	✓	Enhancing the efficiency of resource use , reducing harmful emissions and supporting sustainability are common axes between green technology and digital transformation.
(4)	✓	To obtain any of the services or digital products , you must have an email.
(5)	✖	The "Digital Egypt" platform is a government electronic portal that provides many electronic services to citizens, such as paying electricity and water bills and the application can be downloaded and used on mobile device.

3 Complete the following sentences.

1. The tools of digital transformation include .... , ... and ....

2. Digital transformation can assist you in improving decision marking by providing .... and ....

3. Digital transformation allows citizens to access all their services through .... and ....

4. Instapay allows for sending and receiving money via .... and ....

5. .... and .... are examples of the integration of green technology and digital transformation applications.

	Answer	Explanation
(1)	collaborative and communicative tools, e-learning resources and cloud computing technologies	Digital transformation tools are such as, tools for managing workflows, electronic payment methods, collaborative and communicative tools, e-learning resources, artificial intelligence and machine learning technologies, cloud computing technologies, and cybersecurity solutions.
(2)	data, information-analysis in a timely manner	Digital transformation can assist you in improving decision - making by providing data, information and analysis in a timely manner.
(3)	The internet and mobile applications	Digital transformation allows citizens to access all their services through the internet and mobile applications , so that various services and products are provided to citizens in an easier and faster way.
(4)	a bank account and electronic wallet	Instapay allows for sending and receiving money via a bank account or electronic wallet and provides many services such as paying bills.
(5)	Smart buildings and smart energy grids	Smart buildings , smart energy grids and precision farming are examples of the integration of green technology and digital transformation applications.

Lesson 3 Operating Systems

1 Choose the correct answer from a, b, c or d.

1. .... is responsible for managing hardware components and running all other software.

   a. Antivirus   b. Operating system   c. Word Processing   d. Painter

2. The operating system runs all software and accomplishes tasks in a/an .... way.

   a. difficult   b. easy   c. slow   d. complex

3. Personal computers (PCs) use operating systems such as ....

   a. Microsoft Windows   b. macOS   c. both a & b   d. Xbox

4. Smartphones rely on the iOS operating system from ....

   a. Google   b. Apple   c. Linux   d. macOS

5. .... use operating systems like Linux and Microsoft Windows Server.

a. Game consoles   b. Servers   c. Mobile devices   d. Google

	Answer	Explanation
(1)	Operating system	The operating system is responsible for managing the hardware components, running all software and helping the user accomplish their various tasks on the computer easily and smoothly.
(2)	easy	The operating system is responsible for running all software and helping the user accomplish their tasks easily and smoothly.
(3)	both a & b	Desktop and laptop computers use operating systems like Microsoft Windows, macOS, and different distributions of Linux.
(4)	Apple	Smartphones and tablets rely on operating systems like Apple's iOS and Google's Android operating system.
(5)	Servers	Servers use operating systems like Linux operating system with its diverse distributions, Microsoft Windows Server operating system and specialized server operating systems are used to manage network resources and deliver a range of services.

2 Put (✓) or (✗) for the following sentences.

1. 📖 Smart TVs operate on various operating systems such as Android TV, Tizen, and webOS. (✓)

2. Gaming consoles like Xbox feature exclusive operating systems tailored for gaming applications. (✓)

3. 📖 Using wearable devices like smartwatches and fitness trackers doesn't require an operating system. (✗)

4. Routers and switches use operating systems for network management. (✓)

5. Modern cars and vehicles have embedded systems. (✗)

Answer		Explanation
(1)	✓	Smart TVs operate on operating systems like Android TV, Tizen, webOS and others to offer smart advantages such as streaming services, applications, and internet connectivity.
(2)	✓	Gaming consoles like the Nintendo Switch, Xbox, and PlayStation feature exclusive operating systems tailored for gaming applications and multimedia purposes.
(3)	✗	Using wearable devices like smartwatches and fitness trackers require operating systems tailored to their distinct functions and needs.
(4)	✓	Routers, Switches, and other network equipment use operating systems to manage the network, settings, and security advantages of of the network.
(5)	✗	Modern Cars and vehicles use automotive systems.

3 Complete the following sentences.

1. .... are electronic devices that enable customers to pay for products from their bank accounts instead of using cash.
2. .... control and monitor the progress of industrial processes and provide a safe environment for health and operational safety.
3. .... includes a set of symbols called Icons.
4. The background is .... or .... that the user selects.
5. .... contain icons that symbolize software installed on the operating system.

Answer		Explanation
(1)	Point of sale terminals (POS)	Point of sale terminals are electronic devices that enable customers to pay for purchased products by deducting the price from their bank account instead of using cash.
(2)	Industrial control systems (ICS)	Industrial control systems control and monitor the progress of industrial process, provide a safe environment for health and operational safety, and are used in most industrial sectors such as energy....
(3)	Desktop	The operating system startup screen (desktop) includes a set of symbols called Icons.
(4)	image or color	Background is an image or color that the user selects.
(5)	Bars	Bars contain icons that symbolize software installed on the operating system and other icons to adjust some system settings such as date, time, sound settings and network.

Lesson 4 | Installation and removal of software and digital peripherals

1 Choose the correct answer from a, b, c or d.

1. When you download a program from the Internet, the program is in the form of a ....
   a. digital platform   b. file   c. images   d. spreadsheet

2. If you download a compressed file, you must first .... the file to interact with it.
   a. Extract (unzip)   b. install   c. download   d. save

3. Uninstalling a program means you .... all the files associated with the program to be removed.
   a. compress   b. save   c. delete   d. install

4. Removing unused programs saves disk .... and speeds up and eases the use of the device.
   a. storage space   b. programs   c. control panel   d. files

5. When the operating system automatically detects a new attached device, it ....
   a. deletes the appropriate driver for the attached device
   b. installs the appropriate device driver for the attached device
   c. shuts down the computer
   d. restarts the computer

	Answer	Explanation
(1)	file	If you downloaded the program from the Internet, the program is in the form of a file and this file is used to install the program, but if the program comes on a CD or DVD, we use this CD to install the program.
(2)	Extract (unzip)	The download file may be compressed, so you need to unzip it before accessing the file and selecting the SETUP. EXE icon.
(3)	delete	Uninstalling a program means that you delete all the files of the program that you want to remove from your computer.
(4)	storage space	Removing unused programs saves disk storage space and speeds up and eases the use of the device.
(5)	installs the appropriate device driver for the attached device	When the operating system automatically detects a new attached device, it installs the appropriate device driver for the attached device.

2 Put (✓) or (✗) for the following sentences.

1. The Setup program automatically deletes device driver files. (✗)
2. Many programs come with their own removal or uninstallation command. (✓)
3. When you connect a new peripheral device with the Plug and Play feature, the operating system shuts down the computer. (✗)
4. Operating systems don't support devices connected to the computer. (✗)
5. To install a local printer that supports Plug and Play, connect it to a USB port, and the Plug and Play feature will automatically initiate the installation. (✓)

Answer		Explanation
(1)	✗	The setup program automatically copies the driver files and the setup information file ".inf" into a dedicated folder.
(2)	✓	The program itself removes or uninstalls programs because many programs come with a dedicated removal or uninstallation command.
(3)	✗	When you connect a new peripheral device with the Plug and Play feature, the operating system automatically installs the correct and appropriate device driver for the new peripheral device.
(4)	✗	Operating systems support many peripheral connected to the computer, such as printers and webcams.
(5)	✓	To install a local printer (i.e., directly connected to the computer) that supports Plug and Play, connect it to a USB port, and the Plug and Play feature will automatically install it.

3 Complete the following sentences.

1. You can use .... to assist the operating system in uninstalling a program
2. Modern printers use the .... port, while older ones use the .... port.
3. The final step in printer setup is ....
4. Modern operating systems include a list of .... for a variety of peripheral devices.
5. If the printer driver package includes a setup program, run the setup program and through it, you can identify the printer within ....

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		Answer	Explanation
	(1)	the control panel	Through the Control Panel, the operating system helps you remove or uninstall the program.
	(2)	USB - LPT1	Most older printers that connect to a parallel port the correct choice is the LPT1 port, while modern printers use the USB port.
	(3)	giving the printer a name	The last step in the printer setup process is to give the printer a name. The default name usually includes the manufacturer and model of the printer; you can change this value to a more descriptive name now or later.
	(4)	device drivers	Modern operating systems include a list of device drivers for a variety of peripheral devices.
	(5)	the operating system	If the printer driver package includes a setup program, run the setup program and through it you can identify the printer within the operating system.

Lesson 5 Email

1 Choose the correct answer from a, b, c or d.

1. "................" is a digital communication system used to send and receive messages between users over the Internet.

   a. Text messages   b. **Email**   c. User name   d. Spam messages

2. .... is a unique and distinctive name that is not reserved by anyone else and is located at the beginning of the email address.

   a. **User name**   b. Domain name   c. Virus   d. Gmail

3. The domain name is the name of the .... that store your email messages.

   a. User name   b. Gmail   c. **email server**   d. @ symbol

4. 📖 Through email, you can ....

   a. delete files   b. **use cloud computing applications**
   c. install programs   d. print files

5. Email offers a variety of .... products online.

   a. manual   b. **digital**   c. written   d. high-cost

	Answer	Explanation
(1)	Email	Email is a digital communication system used to send and receive messages between users over the Internet.
(2)	User name	User name is the part that is located at the beginning of the email address, and its is a name that the user chooses and specifies because it is a unique and distinctive name that is not reserved by anyone else.
(3)	email server	Domain name is the name of the email server that hosts the email account and is a place to store your email messages.
(4)	use cloud computing applications	Email is one of the cloud computing tools through it we can use cloud computing applications.
(5)	digital	Registration is done using email on the websites of service providers and digital products online.

2 Put (✓) or (✗) for the following sentences.

1. Email is one of the most common direct communication methods in the world. (✗)

2. The # symbol separates the username from the email server name. (✗)

3. Drawbacks of using email include hacking, spam messages, and fraud. (✓)

4. Google provides various online services, including email services. (✓)

5. To access Google services, a Google account must be created. (✓)

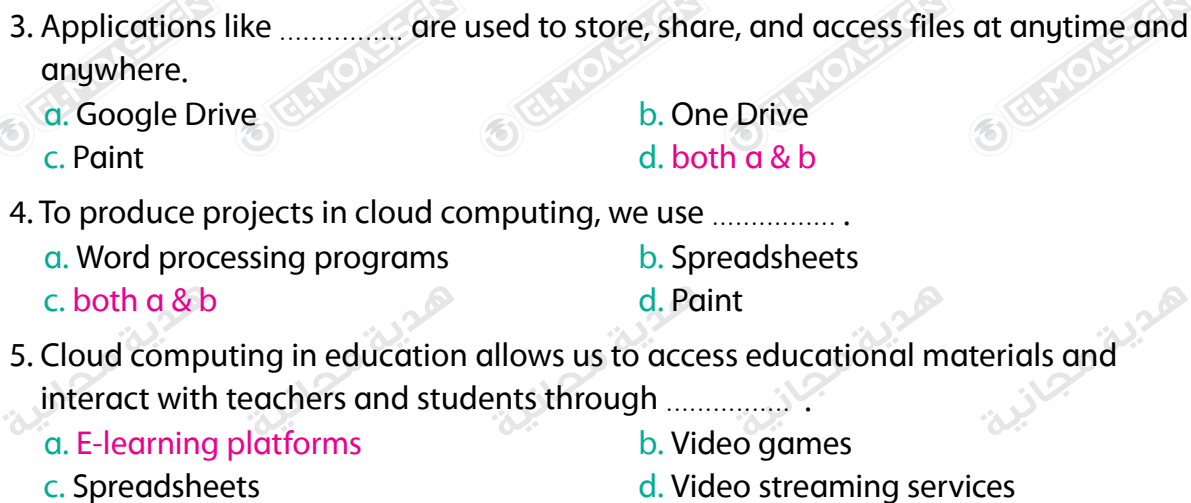|	Answer	Explanation
(1)	✗	Email is one of the most common communication methods in the world and one of the indirect communication tools.
(2)	✗	The @ symbol separates the username from the email server name (domain name) used.
(3)	✓	Drawbacks of using email include hacking, spam messages, fraud, viruses, and privacy issues, as email messages are not always completely secure.
(4)	✓	Google provides various online services, including email services.
(5)	✓	To access Google services, a Google Account must be created. It consists of a username and a password.

3 Complete the following sentences.

1. There are many free email providers available such as .... and ....
2. .... is used to share texts, files, images and other information.
3. A Google Account enables you to use other Google features and services such as .... , ... , ... and ....
4. When creating a Google account, it must include a .... that it's difficult to guess.
5. To sign out of your Gmail account, click the .... icon.

	Answer	Explanation
(1)	Gmail - Yahoo E-mail	There are many free email providers available such as Gmail, Yahoo E-mail, Hotmail and Outlook.
(2)	Email	Email is used to share texts, files, images and other information.
(3)	Google Meet - Google Docs - Google Drive - YouTube	A Google Account enables you to use other Google features and services such as Google Meet, Google Docs, Google Drive and YouTube.
(4)	password	When creating a Google account, it must include a user name and a password that it's difficult to guess.
(5)	Sign out	To sign out of your Gmail account, click on your profile picture icon and then choose "Sign out".

Lesson 6 Cloud Computing

1 Choose the correct answer from a, b, c or d.

1. 📖 The computer storage service is ....
   a. storing files and folders locally on the computer
   b. storing files and folders over the Internet
   c. deleting and exchanging files
   d. Google classroom

2. All the following are the benefits of cloud computing except for ....
   a. ease of access
   b. availability of service
   c. reducing material costs
   d. downloading files without the internet

3. Applications like .... are used to store, share, and access files at anytime and anywhere.

    a. Google Drive   b. One Drive

    c. Paint   d. both a & b

4. To produce projects in cloud computing, we use ....

    a. Word processing programs   b. Spreadsheets

    c. both a & b   d. Paint

5. Cloud computing in education allows us to access educational materials and interact with teachers and students through ....

    a. E-learning platforms   b. Video games

    c. Spreadsheets   d. Video streaming services

	Answer	Explanation
(1)	storing files and folders over the Internet	Cloud storage service or computer storage is storing files and folders over the Internet.
(2)	downloading files without the internet	Cloud computing has many benefits such as ease of access, availability of the service, reducing material costs and sharing digital resources with others.
(3)	both a & b	File storage services are one of computer storage services. We use services such as Google Drive and One Drive to store, share, and access files at anytime and any where.
(4)	both a & b	Producing projects by using Word processing programs such as Google Docs and spreadsheets such as Google Sheets is one of the usages of cloud computing.
(5)	E-learning platforms	We use cloud computing in education through E-learning platforms. We use E-learning platforms to access educational materials and interact with teachers and students such as the Ministry of Education Platform.

2 Put (✓) or (✗) for the following sentences.

1. Microsoft Word is used to work on projects and assignments with others.   (✗)

2. Data processing and storage in cloud computing depend on a weak infrastructure. (✗)

3. We communicate with others and share content on social media platforms such as Gmail and Outlook. (✗)

4. Cloud computing services can be obtained without the need to own a computer with high specifications. (✓)

5. Cloud computing is used in online banking to transfer money and pay bills. (✓)

Answer		Explanation
(1)	✗	We use cloud collaboration tools such as Google Classroom and Microsoft Teams to work on projects and assignments with others.
(2)	✗	Data processing and storage in cloud computing depend on a huge infrastructure that includes data collection, transfer, processing, storage, management, and access.
(3)	✗	Cloud computing applications, such as social media networks, are used to communicate with others and share content on social media platforms like Facebook, Twitter, and Instagram.
(4)	✓	One of the cloud computing benefits is that cloud computing services can be obtained without the need to own a computer or mobile phone with high specifications, whether as hardware or software components.
(5)	✓	Cloud computing can be used in online banking such as paying bills and transferring money.

3 Complete the following sentences.

1. We use messaging applications such as .... and .... to communicate and share files and photos.

2. .... are used to protect our data from loss in case of any damage happens to our devices.

3. There are some requirements to obtain cloud computing services such as .... or ....

4. The most famous cloud computing service providers are .... and ....

5. .... is a model for providing digital services over the Internet.

	Answer	Explanation
(1)	WhatsApp/ Telegram	Cloud computing applications such as messaging applications like WhatsApp and Telegram are used for communicating and sharing files and photos.
(2)	Cloud backup services	We use cloud backup services which are considered computer storage, to protect our data from loss in case of any damage happens to our devices.
(3)	a computer or mobile phone	The requirements to obtain cloud computing services are a computer or mobile phone, an internet browser or application, an internet connection and creating an account with one of the computing service providers.
(4)	Amazon - Microsoft Azure	Amazon Web Services, Microsoft Azure and Google Cloud Platform are the most famous cloud computing service providers.
(5)	Cloud computing	Cloud computing is a model for providing digital services over the Internet.

Lesson 7   Google Meet and Project Management

1 Choose the correct answer from a, b, c or d.

1. .... is a video conferencing service developed by Google that enables users to conduct group video calls, share screens and collaborate.
   a. Google Meet   b. Google Account   c. Google play   d. YouTube

2. To express your opinion in an organized manner during a Google Meet session, you can click on the ....
   a. meeting link   b. hand icon
   c. speak at any time   d. exit before the meeting ends

3. You can share your entire screen or a specific window with participants at the bottom of the page by clicking on the .... icon.
   a. In call messages   b. Stop Sharing   c. Messages   d. Share Screen ⬆

4. Google Meet is a method of .... communication.
   a. indirect   b. direct   c. slow   d. difficult

5. You can start an instant meeting in Google Meet through all of the following except ....
   a. clicking the "New Meeting" button   b. clicking "Start an instant meeting"
   c. clicking "Copy" 🗍   d. clicking "Sign out"

	Answer	Explanation
(1)	Google Meet	Google Meet is a video conferencing service developed by Google that enables users to conduct group video calls, share screens, chat, collaborate in real time, and work together on joint projects among students.
(2)	hand icon	Pressing hand icon helps organize sessions, talk and intervene in an organized and smooth manner.
(3)	Share screen	You can share your entire screen with participants or a specific window at the bottom of the page, click on ⬆ the "Share screen" icon now.
(4)	direct	Google Meet is a method of direct communication between users to make video calls and online conferences to exchange data, information and ideas as you can use them to communicate with others face to face.
(5)	Clicking Sign out	Your can start an instant meeting in "Google Meet" by : Going to the main page of the "Google Meet" application and follow these steps : 1. Click on the "New meeting" button. 2. Click on Start an instant meeting. 3. Click on the "Copy" icon, ▢ to share the meeting link.

2 Put (✓) or (✗) for the following sentences.

1. To express your opinion in an organized manner during a Google Meet session, you can speak at any time. (✗)

2. You can access the Google Meet application on Android devices through Gmail. (✗)

3. During a Google Meet session, whether you're the organizer or the invitee, you can use various options and features. (✓)

4. While one participant is speaking, the rest of the participants must listen, and turn off the microphone. (✓)

5. Google Meet is a service that only provides audio. (✗)

	Answer	Explanation
(1)	✗	To express your opinion in an organized manner during a Google Meet session, you can send a message.

(2)	✘	You can access the Google Meet application on Android devices by downloading it through the Google Play Store.
(3)	✓	During a Google Meet session, whether you're the organizer or the invitee, you can use various options and features that help maintain an organized and enjoyable meeting environment.
(4)	✓	One of the rules that you should follow during the meeting is when one participant is speaking, the rest must listen, and turn off the microphone.`
(5)	✘	Google Meet is a video conferencing service that you can use to communicate with others face to face.

3 Complete the following sentences.

1. To access Google Meet services, you must have a ....
2. To help organize sessions, talk and intervene in an organized and smooth manner, you should ....
3. Send the meeting link to the participants via one of the communication tools .... or ....
4. If you are invited to a meet through a link, you should not sent the .... to someone else, and you must ask the meeting owner's permission.
5. To create a meeting for next week through Google Meet, we click on ....

	Answer	Explanation
(1)	Google Account	In order to access the "Google Meet" service, you must have a "Google Account"
(2)	listen to the speaker	You should listen to the speaker in order to help in organizing the sessions, talk and intervene in an organized and smooth manner.
(3)	Email - WhatsApp	You should use email or WhatsApp when you send the meeting link to the participants.
(4)	meeting link	You should not send the meeting link to someone else, and you must ask the meeting owner's permission.
(5)	create meeting for a later time	When you create a meeting for next week through "Google Meeting", you should click on "Create a meeting for a later time"

Lesson 8 — Database Design

1 Choose the correct answer from a, b, c or d.

1. .... are a collection of data and information organized and linked to each other.
   a. Charts
   b. Software services
   c. Databases
   d. Collaboration tools

2. All the following are the usages of databases except for ....
   a. saving students' information
   b. saving medical records
   c. tracking inventory in stores
   d. writing text documents

3. .... is a term that refers to extremely large and diverse sets of structured and unstructured data.
   a. Data table
   b. Big Data
   c. Database
   d. Word processing

4. .... is used to create Data Table.
   a. Word
   b. Excel
   c. Google Meet
   d. Both a & b

5. .... is used to create custom applications to manage data and if you have a large quantity of complex data.
   a. Word
   b. Excel
   c. Access
   d. Paint

	Answer	Explanation
(1)	Databases	Databases are a collection of data and information organized and linked. Databases store data and information.
(2)	writing text document	Databases are used in saving students information, saving medical records in hospitals and in tracking inventory in stores.
(3)	Big Data	The term Big Data refers to very large and diverse sets of structured, unstructured and semi-structured data that continue to grow significantly over time .
(4)	Both a & b	With "Word" and "Excel" , you can create a Data Table.
(5)	Access	Microsoft Access is used when you ∗ have a large amount of complex data. ∗ need to create relations between data ∗ want to create custom applications to manage data. ∗ need higher data security.

2 Put (✓) or (×) for the following sentences.

1. 📖 A Data Table is a non-essential element in building databases. (×)
2. Word is used to arrange and sort students' grades and perform simple calculations. (×)
3. "Table Design" is used to write the names of the table fields and specify their data type. (✓)
4. We use "Datasheet View" of the table to enter and view the table data. (✓)
5. Choose "Table Design" to display the data view window. (×)

	Answer	Explanation
(1)	×	A Data Table is an essential element in building databases and the only source of data within the database.
(2)	×	Excel is used to arrange and sort students' grades and perform simple calculations
(3)	✓	You can create a "Table" in Access through "Table Design" to write the names of the table fields and specify their data type.
(4)	✓	"Datasheet View" is one of the steps in creating "Table" in Access to enter and view data in the table.
(5)	×	To display the Data View window, choose "Datasheet View".

3 Complete the following sentences.

1. .... is one of the applications used to create databases and build a complex structure for data and its management.
2. A .... consists of rows and columns.
3. The advantages of using databases include .... , ... and ....
4. Databases are used in .... and ....
5. .... is a field in a database table that is used to uniquely identify each record in that table.

	Answer	Explanation
(1)	Microsoft Access	It is one of the applications used to create databases . It builds a real database, where you can build a complex structure for data and manage it more efficiently.

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(2)	Data Table	A Data Table consists of rows and columns, where each row represents a single record of data, and each column represents a specific field of data.
(3)	organization, efficiency, and accuracy	Organization , efficiency , accuracy , security and sharing are advantages of using databases.
(4)	websites-data analysis	Databases are used in websites , data analysis , scientific research and business applications.
(5)	Primary key	It is a field in a database table that is used to uniquely identify each record in that table, and the primary key value is never repeated within the same table.

Lesson 9 Forms & Queries

1 Choose the correct answer from a, b, c or d.

1. A form is a graphical interface designed specifically to interact with data stored in the ....

   a. information   b. database   c. books   d. queries

2. Click on the " .... " icon to display the data of the last record.

   a. Last record   b. Next record

   c. First record   d. Layout View

3. Data can be entered through the spreadsheet or through ....

   a. student grades   b. queries

   c. form   d. information

4. Examples of queries include creating a query to display data from a student's record or ....

   a. database

   b. tools to obtain data

   c. query design

   d. a list of students who scored the highest grades in the subject

5. The .... in a query helps you identify specific items in an Access database.

   a. results   b. Design View

   c. criteria   d. show

	Answer	Explanation
(1)	database	A form is a graphical interface designed specifically to interact with data stored in the database.
(2)	Last record	Click on the "Last record" icon to display the data of the last record.
(3)	form	Data can be entered through the spreadsheet or through form.
(4)	a list of students who scored the highest grades in the subject	Examples of queries include creating a query to display data from a student's, record or a list of students who scored the highest grades in the subject.
(5)	criteria	The criteria in a query helps you identify specific items in an Access database.

2 Put (✓) or (✗) for the following sentences.

1. A form is a graphical interface designed to interact with data stored in the database. (✓)

2. Access provides several methods that allow you to create a query. (✓)

3. We use the query design view (Query Design) to display query results. (✗)

4. When you add a field using drag and drop in the design grid , Access automatically fills the Table row in the design grid with the name of the table used "Student Grades" to indicate the data source for that field. (✓)

5. When you remove the ✓ sign from the computer score columns in the Show row in the design grid , this means that these field will appear when executing the query. (✗)

	Answer	Explanation
(1)	✓	It is a screen that displays specific information from the database and allows the user to enter, modify or delete this information in an organized and convenient way.
(2)	✓	It is a program that provides many ways to create a query.

(3)	✗	To create a new query.
(4)	✓	When you add a field using drag and drop in the design grid , Access automatically fills the Table row in the design grid with the name of the table used "Students Grades" to clarify the data source for that field.
(5)	✗	It means not appearing the field when executing the query .

3 Complete the following sentences.

1. The "Design View" window is divided into .... parts.
2. You can create a new form through ....
3. The form allows the user to .... , ... or .... the information in an organized way.
4. The .... in query helps you to identify specific items in an Access data base.
5. Queries are tools used to obtain .... from the database according to specific criteria or conditions.

	Answer	Explanation
(1)	two	The "Design View" window is divided into two parts, the upper part contains the data source table and the lower part is the query design grid.
(2)	The Form Wizard	A new form can be created using the Form Wizard.
(3)	modify, enter delete	The form is a screen that displays specific information from the database and allows the use to enter, modify or delete this information in an organized way.
(4)	criteria	The criteria in a query helps you to identify specific items in an Access database.
(5)	data	Queries are tools used to obtain data from the database according to "specific criteria or conditions ", and through the query, information can be obtained from the database based on the data stored in the database.

5 Sample Tests

1 Choose the correct answer from a, b, c or d.

1. Cloud computing is a model for providing .... online.
   a. digital services
   b. development of software
   c. audio communication between people
   d. removing folders

2. .... is one of the email service providers.
   a. Gmail
   b. Paint
   c. Youtube
   d. Google Docs

3. .... is a tool for collaborating and communicating with others face-to-face.
   a. Word
   b. Zoom
   c. Excel
   d. Access

4. Programs can be installed through the ....
   a. CD or DVD
   b. Internet
   c. both (a) and (b)
   d. Maps

5. Smartphones and tablets depend on operating systems like Apples's ....
   a. Android
   b. iOS
   c. macOS
   d. Linux

6. A/An .... is one of the requirement for using cloud computing.
   a. printer
   b. program
   c. internet browser
   d. electric car

7. .... is an application that allows sending and receiving money through a bank account or electronic wallet.
   a. WhatsApp
   b. Facebook
   c. Telegram
   d. INSTAPAY

2 Put (✓) or (✗) for the following sentences.

1. The (#) symbol separates the user name from the email server name. ( )
2. Cloud computing can be used in e-commerce. ( )
3. Tablets are only used to connect to the internet. ( )
4. The operating system ensures the safety of computer data. ( )
5. We only use routers to manage the network. ( )
6. You can start an instant meeting using Google Meet by clicking the "Create" button. ( )
7. The operating system provides a difficult interface for the user. ( )
8. Your digital project helps save time and effort. ( )

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Test 2

1 Choose the correct answer from a, b, c or d.

1. Sound is turned on during the meeting in "Google Meet" by clicking on "................".
   a. Mute sound   b. Sound   c. Microphone icon   d. Share sound

2. You can access the meeting from "Google Meet" by clicking on "................".
   a. Send   b. Share   c. Chat   d. Link

3. .... is a national project that involves integrating digital technology into aspects of work to develop products and services.
   a. Digital Transformation   b. Electric cars
   c. Green technology   d. Email

4. .... is an essential element in creating databases.
   a. Row   b. Column
   c. Data Table   d. Digital transformation

5. .... are tools used to obtain data from a database based on specific criteria and conditions.
   a. Forms   b. Digital transformation
   c. Emails   d. Queries

6. To stop a sharing your screen in Google Meet, click ....
   a. "New"   b. "Create"   c. "Sign in"   d. "Stop sharing"

7. To add a criteria or conditions to queries in Access, click ....
   a. "Delete"   b. "Add"   c. "Edit"   d. "Enter criteria"

8. The .... feature means the operating system installs the correct and suitable program for the device.
   a. Plug and Play   b. Control Panel   c. CD   d. Alt+cut

2 Put (✓) or (✗) for the following sentences.

1. Google Meet is one of the services provided by Microsoft.   (   )
2. Servers use operating systems like Linux.   (   )
3. ATMs use embedded operating systems.   (   )
4. We use servers to manage network resources and provide different services.   (   )
5. You can use a smartphone without an operating system.   (   )
6. Programs cannot be installed using a DVD.   (   )
7. Recycling materials helps reduce the amount of waste.   (   )

1 Choose the correct answer from a, b, c or d.

1. The "Wizard Program" is used to ....
   a. find the driver for the new peripheral device
   b. delete programs
   c. change device settings
   d. store programs

2. Desktop and laptop computers use operating systems like ....
   a. macOS   b. Microsoft windows
   c. iOS   d. both a & b

3. .... are devices that can be set up and installed on a computer.
   a. Printers   b. Electric cars   c. ATMs   d. USB devices

4. .... contain icons for adjusting some system settings such as date and time.
   a. Icons   b. Background   c. Bars   d. Desktop

5. .... is a board term that includes several devices used in industrial facilities.
   a. Industrial control systems   b. Digital systems
   c. Embedded systems   d. Alarm systems

6. When installing new devices, the setup program .... driver files in a dedicated folder.
   a. deletes   b. cuts   c. copies   d. writes

7. Programs can be obtained either through .... or through online downloads.
   a. a compressed file   b. one of the storage units
   c. images   d. a printer

2 Put (✓) or (✗) for the following sentences.

1. Email is a system for sending and receiving email messages online.   (   )
2. The user name can be the same across email accounts.   (   )
3. You can create a meeting for a later in Google Meet by clicking "Start".   (   )
4. Data from the "Student Grades" table is displayed in "Design View".   (   )
5. Your digital project can be implemented through emails.   (   )
6. The "Design View" is used to enter and display data in the table.   (   )
7. Cloud computing is a model for providing digital services without internet.   (   )
8. An email address consists of five main components.   (   )

Test 4

1 Choose the correct answer from a, b, c or d.

1. An email address consists of .... main components.
   a. three   b. four   c. five   d. seven

2. The .... is a column in a database table that is used to uniquely identify each record and whose value is never repeated within the same table.
   a. Email   b. primary key
   c. digital transformation   d. Google account

3. To log out your Gmail account, click on your profile picture icon and then choose "................" .
   a. Sign out   b. Log in   c. Delete   d. Create

4. .... is an image or color that the user selects.
   a. Background   b. Title   c. Bar   d. Icon

5. Using .... help you access data quickly.
   a. spreadsheets   b. commercial applications
   c. databases   d. websites

6. The method of displaying information in queries in databases is based on .... criteria or conditions.
   a. unorganized   b. random   c. specific   d. number-based

7. .... helps in communication in daily life using applications of cloud computing.
   a. Email   b. Software   c. Application   d. Cloud storage

2 Put (✓) or (✗) for the following sentences.

1. You can select the language for a Google Meet session through "Change Language".   (   )

2. When installing a program, we use "This PC" icon to access the download file.   (   )

3. A user name is unique, distinctive, and not reserved by anyone else.   (   )

4. To remove a program, click on Uninstall.   (   )

5. Smartphones rely on operating systems like Android and iOS.   (   )

6. The first step in printer setup is to give the printer a name.   (   )

7. To use Google services such as email, you must have a Google account.   (   )

8. The operating system is one of the important elements in a computer system.   (   )

1 **Choose the correct answer from a, b, c or d.**

1. To take advantage of all the features of a peripheral device, the operating system .... the correct Driver.
   a. deletes   b. installs   c. cuts   d. sends

2. Google Meet was developed by ....
   a. Microsoft   b. Apple   c. Google   d. Facebook

3. Google Docs is a .... program to create and edit documents.
   a. Word processing   b. collaboration tools
   c. Excel   d. video games

4. .... is the correct choice for most older printers.
   a. DVD   b. GPS   c. LPT1   d. USB

5. ATMs use .... operating systems.
   a. dual   b. embedded   c. digital   d. multiple

6. To log out your Gmail account, click on "..............." icon.
   a. Sign in   b. Close   c. Shut down   d. Sign out

7. .... is one of cloud-based spreadsheets.
   a. Paint   b. Google Sheets   c. Word   d. Google Docs

8. Google Meet is a method of .... communication.
   a. direct   b. indirect   c. difficult   d. slow

2 **Put (✓) or (✗) for the following sentences.**

1. You can remove a program without needing an operating system. ( )

2. You can't use a computer without installing any programs. ( )

3. Programs can be installed from a DVD or downloaded the program from the Internet. ( )

4. Databases don't allow to store data about websites. ( )

5. The design view for a query is divided into two sections, the lower part is for the data source table. ( )

6. Digital transformation helps increase efficiency and productivity. ( )

7. Operating systems are essential for running and managing devices. ( )